

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. The following listing provides the amended claims with the amendments marked with deleted material crossed out and new material underlined to show the changes made.

1. (Canceled)

2. (Currently Amended) ~~The method as claimed in claim 1, said method further comprising:~~ A method of controlling rate distortion in a video compression and encoding system, said method comprising:

selecting a distortion value D near a desired distortion value;

determining a quantizer value Q using said distortion value D;

calculating a Lagrange multiplier lambda using said quantizer value Q;

encoding a pixelblock using said Lagrange multiplier lambda and said quantizer value Q;

increasing said Lagrange multiplier lambda when a buffer exceeds an overflow threshold value and increasing said quantizer value Q if said Lagrange multiplier lambda exceeds a maximum lambda threshold; and

decreasing said Lagrange multiplier lambda when a buffer falls below an underflow threshold value and decreasing said quantizer value Q if said Lagrange multiplier lambda falls below a minimum lambda threshold.

3. (Original) The method as claimed in claim 2, said method further comprising:
recalculating said Lagrange multiplier lambda if said quantizer value Q is adjusted.

4. (Original) The method as claimed in claim 2, said method further comprising wherein said Lagrange multiplier λ is increased or decreased by an amount dependent upon said quantizer value Q .

5. (Currently Amended) ~~The method as claimed in claim 1, said method further comprising:~~ A method of controlling rate distortion in a video compression and encoding system, said method comprising:

selecting a distortion value D near a desired distortion value;

determining a quantizer value Q using said distortion value D ;

calculating a Lagrange multiplier λ using said quantizer value Q ;

encoding a pixelblock using said Lagrange multiplier λ and said quantizer value Q ;

calculating a visual mask value M ; and

increasing said Lagrange multiplier λ when said visual mask value M times said Lagrange multiplier λ is less than a maximum threshold for said Lagrange multiplier λ .

6. (Original) The method as claimed in claim 5 wherein said maximum threshold for said Lagrange multiplier λ is dependent upon said quantizer value Q .

7. (Currently Amended) The method as claimed in claim 5, said method further comprising:

increasing said Lagrange multiplier λ when a buffer exceeds an overflow threshold value and increasing said quantizer value Q if said Lagrange multiplier λ exceeds a maximum λ threshold; and

decreasing said Lagrange multiplier λ when a buffer falls below an ~~underflow~~ underflow threshold value and decreasing said quantizer value Q if said Lagrange multiplier λ falls below a minimum λ threshold.

8. (Original) The method as claimed in claim 7, said method further comprising:
recalculating said Lagrange multiplier λ if said quantizer value Q is
adjusted.

9. (Canceled)

10. (Currently Amended) ~~The computer-readable medium as claimed in claim 9~~
~~wherein said set of computer instructions further implement the steps of:~~ A computer-readable
medium, said computer-readable medium containing a set of computer instructions for
implementing a method of controlling rate distortion in a video compression and encoding
system with the following steps:

selecting a distortion value D near a desired distortion value;

determining a quantizer value Q using said distortion value D ;

calculating a Lagrange multiplier λ using said quantizer value Q ;

encoding a pixelblock using said Lagrange multiplier λ and said quantizer
value Q ;

increasing said Lagrange multiplier λ when a buffer exceeds an overflow
threshold value and increasing said quantizer value Q if said Lagrange multiplier λ exceeds
a maximum λ threshold; and

decreasing said Lagrange multiplier λ when a buffer falls below an
~~underflow~~ underflow threshold value and decreasing said quantizer value Q if said Lagrange
multiplier λ falls below a minimum λ threshold.

11. (Original) The computer-readable medium as claimed in claim 10 wherein said set
of computer instructions further implement the steps of:

recalculating said Lagrange multiplier λ if said quantizer value Q is
adjusted.

12. (Original) The computer-readable medium as claimed in claim 10 wherein said Lagrange multiplier λ is increased or decreased by an amount dependent upon said quantizer value Q .

13. (Currently Amended) ~~The computer-readable medium as claimed in claim 9 wherein said set of computer instructions further implement the steps of:~~ A computer-readable medium, said computer-readable medium containing a set of computer instructions for implementing a method of controlling rate distortion in a video compression and encoding system with the following steps:

selecting a distortion value D near a desired distortion value;

determining a quantizer value Q using said distortion value D ;

calculating a Lagrange multiplier λ using said quantizer value Q ;

encoding a pixelblock using said Lagrange multiplier λ and said quantizer value Q ;

calculating a visual mask value M ; and

increasing said Lagrange multiplier λ when said visual mask value M times said Lagrange multiplier λ is less than a maximum threshold for said Lagrange multiplier λ .

14. (Original) The computer-readable medium as claimed in claim 13 wherein said maximum threshold for said Lagrange multiplier λ is dependent upon said quantizer value Q .

15. (Currently Amended) The computer-readable medium as claimed in claim 13 wherein said set of computer instructions further implement the steps of:

increasing said Lagrange multiplier λ when a buffer exceeds an overflow

threshold value and increasing said quantizer value Q if said Lagrange multiplier λ exceeds a maximum λ threshold; and

decreasing said Lagrange multiplier λ when a buffer falls below an ~~underflow~~ underflow threshold value and decreasing said quantizer value Q if said Lagrange multiplier λ falls below a minimum λ threshold.

16. (Original) The computer-readable medium as claimed in claim 15 wherein said set of computer instructions further implement the steps of:
recalculating said Lagrange multiplier λ if said quantizer value Q is adjusted.